## PATENT COOPERATION TREATY

## **PCT**

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

| Applicant's or agent's file reference<br>CSAZ 2 00172 PCT                                                                                                                                                                                                  | FOR FURTHER                            |                    | Form PCT/ISA/220 ere applicable, item 5 below.                                   |  |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|--------------------|----------------------------------------------------------------------------------|--|--|--|
|                                                                                                                                                                                                                                                            | ACTION International filing date (day) |                    | (Earliest) Priority Date (day/month/year)                                        |  |  |  |
| International application No.<br>PCT/US04/21588                                                                                                                                                                                                            | 06 July 2004 (06.07.2004)              |                    | 03 July 2003 (03.07.2003)                                                        |  |  |  |
| Applicant COOPER TECHNOLOGY SERVICES, LLC                                                                                                                                                                                                                  |                                        |                    |                                                                                  |  |  |  |
|                                                                                                                                                                                                                                                            |                                        |                    |                                                                                  |  |  |  |
| This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.                                         |                                        |                    |                                                                                  |  |  |  |
| This international search report consists of a total of sheets.                                                                                                                                                                                            |                                        |                    |                                                                                  |  |  |  |
| It is also accompanied by a copy of each prior art document cited in this report.                                                                                                                                                                          |                                        |                    |                                                                                  |  |  |  |
| <ol> <li>Basis of the Report</li> <li>a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.</li> </ol> |                                        |                    |                                                                                  |  |  |  |
| The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).                                                                                                        |                                        |                    |                                                                                  |  |  |  |
| b. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, see Box No.                                                                                                                                        |                                        |                    |                                                                                  |  |  |  |
| 2. Certain claims were found unsearchable (See Box No. II)                                                                                                                                                                                                 |                                        |                    |                                                                                  |  |  |  |
| 3. Unity of invention is lacking (See Box No. III)                                                                                                                                                                                                         |                                        |                    |                                                                                  |  |  |  |
| 4. With regard to the title,                                                                                                                                                                                                                               | nitted by the analisant                |                    |                                                                                  |  |  |  |
| the text is approved as submitted by the applicant.                                                                                                                                                                                                        |                                        |                    |                                                                                  |  |  |  |
| the text has been established by this Authority to read as follows:                                                                                                                                                                                        |                                        |                    |                                                                                  |  |  |  |
|                                                                                                                                                                                                                                                            |                                        |                    |                                                                                  |  |  |  |
|                                                                                                                                                                                                                                                            |                                        |                    |                                                                                  |  |  |  |
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|                                                                                                                                                                                                                                                            |                                        |                    |                                                                                  |  |  |  |
| 5. With regard to the abstract,                                                                                                                                                                                                                            | with a by the applicant                |                    |                                                                                  |  |  |  |
| the text is approved as subr                                                                                                                                                                                                                               |                                        | hy thic Authori    | ity as it appears in Box No IV. The                                              |  |  |  |
| the text has been establishe applicant may, within to this Authority.                                                                                                                                                                                      | one month from the date of n           | nailing of this in | ity as it appears in Box No. IV. The nternational search report, submit comments |  |  |  |
| 6. With regard to the drawings, a. the figure of the drawings to be published with the abstract is Figure No. 2                                                                                                                                            |                                        |                    |                                                                                  |  |  |  |
| a. the figure of the drawings to be published with the abstract is Figure No. 2  as suggested by the applicant.                                                                                                                                            |                                        |                    |                                                                                  |  |  |  |
|                                                                                                                                                                                                                                                            | Authority, because the applic          | ant failed to sug  | ggest a figure.                                                                  |  |  |  |
| <u></u>                                                                                                                                                                                                                                                    | Authority, because this figure         |                    |                                                                                  |  |  |  |
|                                                                                                                                                                                                                                                            | published with the abstract.           |                    |                                                                                  |  |  |  |

Form PCT/ISA/210 (first sheet) (January 2004)

## INTERNATIONAL SEARCH REPORT

International application No.

| INTERNATIONAL SEARCH REFOR                                                                                                                                              |                                                                                      | •                                                               | PCT/US04/21588                                                                                                                                                                                                                               |                               |  |  |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|-----------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|--|--|--|
| A. CLASSIFICATION OF SUBJECT MATTER                                                                                                                                     |                                                                                      |                                                                 |                                                                                                                                                                                                                                              |                               |  |  |  |
| IPC(7) : F16C 27/00                                                                                                                                                     |                                                                                      |                                                                 |                                                                                                                                                                                                                                              |                               |  |  |  |
| US CL: 384/536 According to International Patent Classification (IPC) or to both national classification and IPC                                                        |                                                                                      |                                                                 |                                                                                                                                                                                                                                              |                               |  |  |  |
| B. FIELDS SEARCHED                                                                                                                                                      |                                                                                      |                                                                 |                                                                                                                                                                                                                                              |                               |  |  |  |
| Minimum documentation searched (classification system followed by classification symbols) U.S.: 384/536, 585, 539; 180/381; 29/898.07.                                  |                                                                                      |                                                                 |                                                                                                                                                                                                                                              |                               |  |  |  |
| Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched                                           |                                                                                      |                                                                 |                                                                                                                                                                                                                                              |                               |  |  |  |
| Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)                                            |                                                                                      |                                                                 |                                                                                                                                                                                                                                              |                               |  |  |  |
| C. DOCUMENTS CONSIDERED TO BE RELEVANT                                                                                                                                  |                                                                                      |                                                                 |                                                                                                                                                                                                                                              |                               |  |  |  |
| Category *                                                                                                                                                              | Citation of document, with indication, where ap                                      | Relevant to claim No.                                           |                                                                                                                                                                                                                                              |                               |  |  |  |
| A                                                                                                                                                                       | US 5,501,531 A (HAMAEKERS) 26 March 1996 (2                                          | 1-28                                                            |                                                                                                                                                                                                                                              |                               |  |  |  |
| A                                                                                                                                                                       | US 5,208,981 A (PUZSIK) 11 May 1993 (11.05.199                                       | 1-28                                                            |                                                                                                                                                                                                                                              |                               |  |  |  |
| A                                                                                                                                                                       | US 5,033,875 A (MOULINET) 23 July 1991 (23.07                                        | 1-28                                                            |                                                                                                                                                                                                                                              |                               |  |  |  |
| A                                                                                                                                                                       | US 4,722,618 A (MATSUMOTO et al.) 02 February                                        | 1-28                                                            |                                                                                                                                                                                                                                              |                               |  |  |  |
| A                                                                                                                                                                       | US 3,961,829 A (BOWEN et al.) 08 June 1976 (08.                                      | 1-28                                                            |                                                                                                                                                                                                                                              |                               |  |  |  |
| A                                                                                                                                                                       | US 3,743,365 A (Kato) 03 July 1973 (03.07.1973).                                     | 1-28                                                            |                                                                                                                                                                                                                                              |                               |  |  |  |
| A                                                                                                                                                                       | US 3,639,015 A (MAAS) 01 February 1972 (01.02.                                       | 1-28                                                            |                                                                                                                                                                                                                                              |                               |  |  |  |
| A                                                                                                                                                                       | US 3,309,154 A (STOKELY) 14 March 1967 (14.0)                                        | 1-28                                                            |                                                                                                                                                                                                                                              |                               |  |  |  |
|                                                                                                                                                                         |                                                                                      |                                                                 |                                                                                                                                                                                                                                              |                               |  |  |  |
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|                                                                                                                                                                         |                                                                                      |                                                                 |                                                                                                                                                                                                                                              | <u> </u>                      |  |  |  |
| Further                                                                                                                                                                 | documents are listed in the continuation of Box C.                                   |                                                                 | ent family annex.                                                                                                                                                                                                                            |                               |  |  |  |
| Special categories of cited documents:                                                                                                                                  |                                                                                      | priority d                                                      | ument published after the in<br>late and not in conflict with<br>nd the principle or theory un                                                                                                                                               | the application but cited to  |  |  |  |
|                                                                                                                                                                         | t defining the general state of the art which is not considered to ticular relevance |                                                                 |                                                                                                                                                                                                                                              | e claimed invention cannot be |  |  |  |
| •                                                                                                                                                                       | plication or patent published on or after the international filing                   | considere                                                       | of particular relevance; the<br>ed novel or cannot be consider<br>the document is taken along                                                                                                                                                | dered to involve an inventive |  |  |  |
| "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) |                                                                                      | considere<br>combined                                           | document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art |                               |  |  |  |
| "O" document referring to an oral disclosure, use, exhibition or other means                                                                                            |                                                                                      |                                                                 | t member of the same paten                                                                                                                                                                                                                   |                               |  |  |  |
| priority d                                                                                                                                                              | t published prior to the international filing date but later than the                |                                                                 |                                                                                                                                                                                                                                              |                               |  |  |  |
| Date of the actual completion of the international search                                                                                                               |                                                                                      | Date of mailing of the international search report  06 JUL 2005 |                                                                                                                                                                                                                                              |                               |  |  |  |
| 20 April 2005 (20.04.2005)  Name and mailing address of the ISA/US                                                                                                      |                                                                                      | Authorized office                                               | Authorized officer                                                                                                                                                                                                                           |                               |  |  |  |
| Mai                                                                                                                                                                     | in Stop PCT, Attn: ISA/US nmissioner for Patents                                     | Authorized officer Thomas R. Hannon V H A                       |                                                                                                                                                                                                                                              |                               |  |  |  |
| P.O                                                                                                                                                                     | D. Box 1450                                                                          | Telephone No. (                                                 | •                                                                                                                                                                                                                                            |                               |  |  |  |
|                                                                                                                                                                         | Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230                         |                                                                 |                                                                                                                                                                                                                                              |                               |  |  |  |